Defining Psychology

1.1

- Scientific Study
- Observable Behaviour
- Private Mind

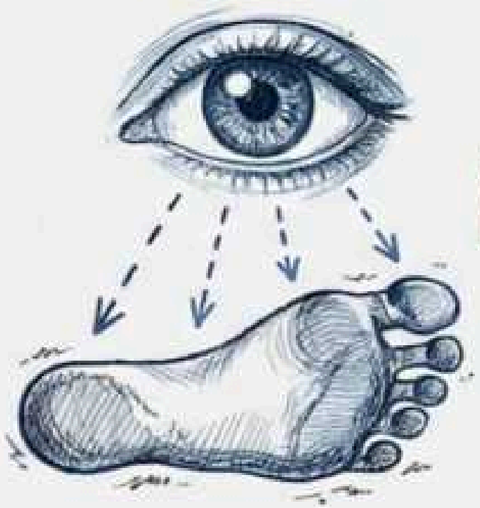


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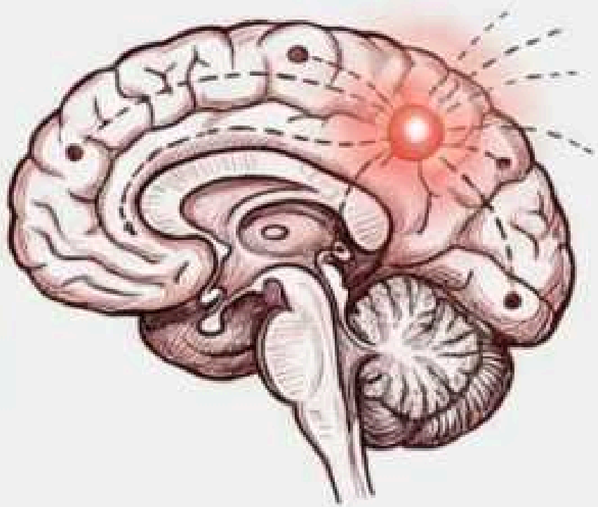


= Psychology

Behaviour



Mind

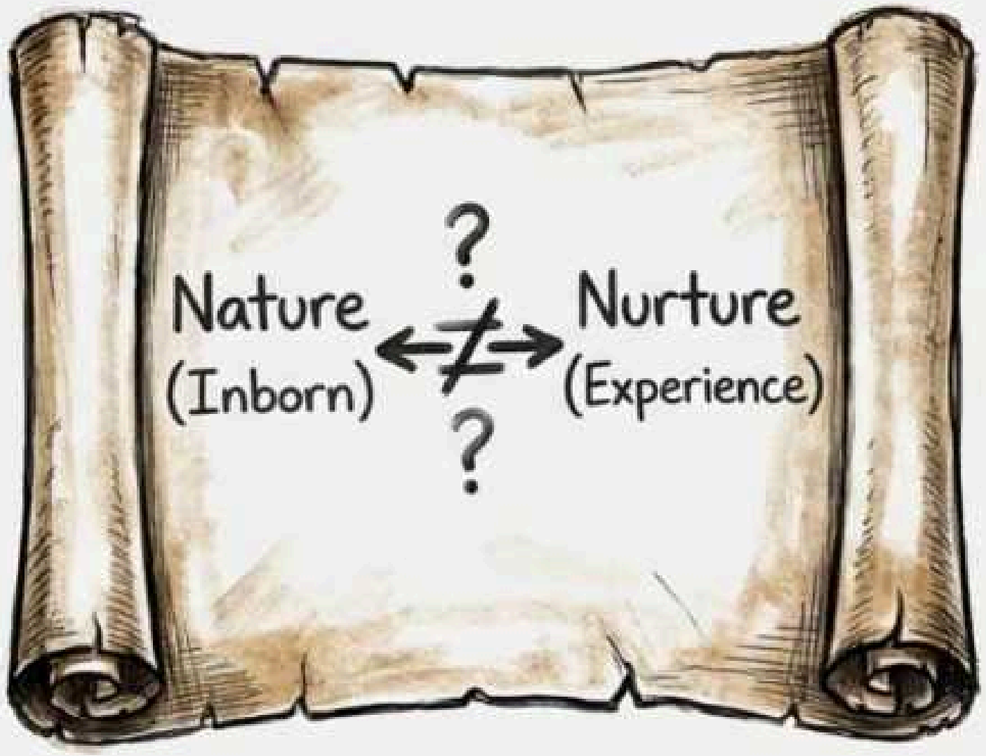


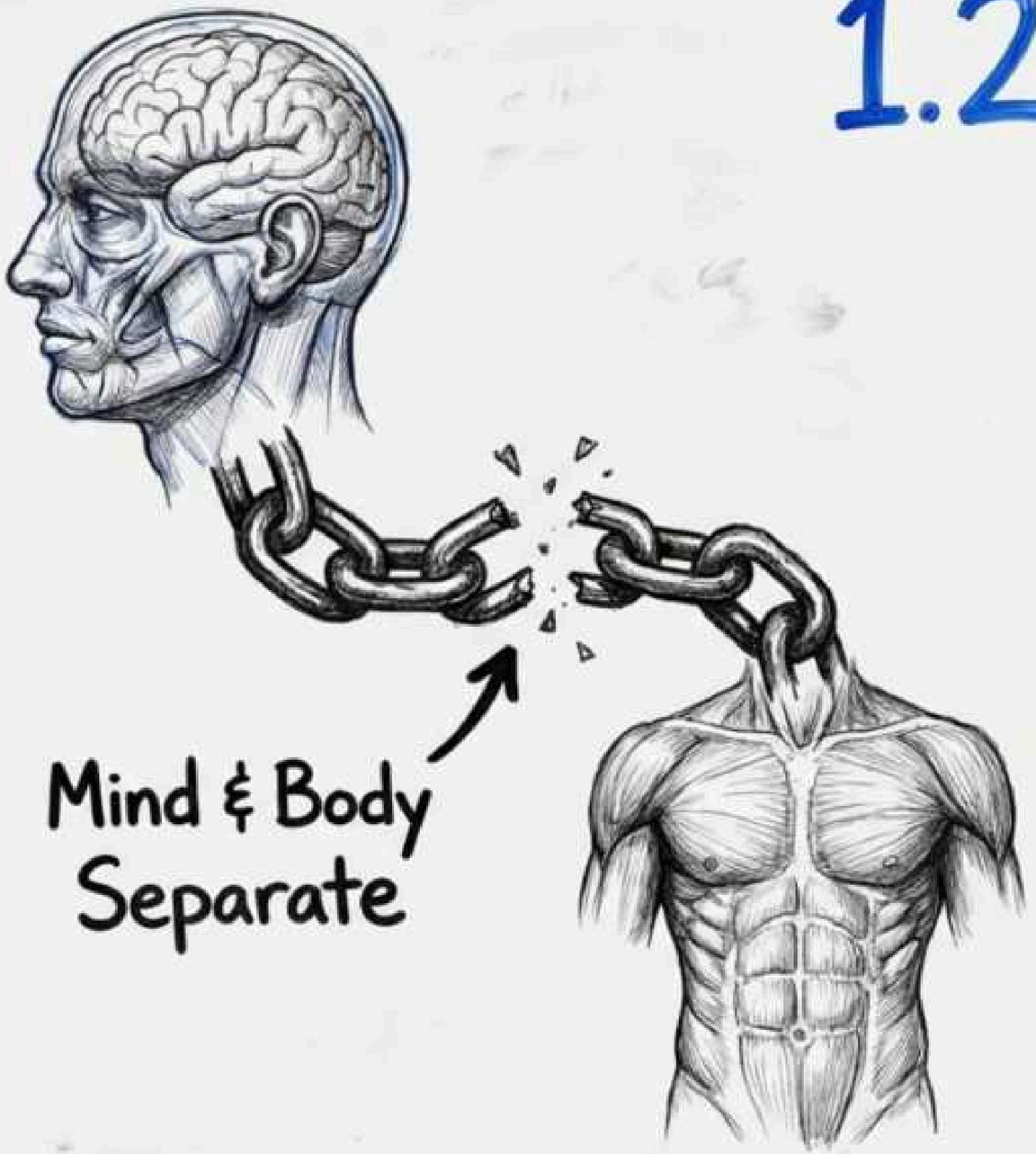
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Philosophical Roots

1.2

Plato & Aristotle
Inborn vs. Learned
Descartes' Dualism

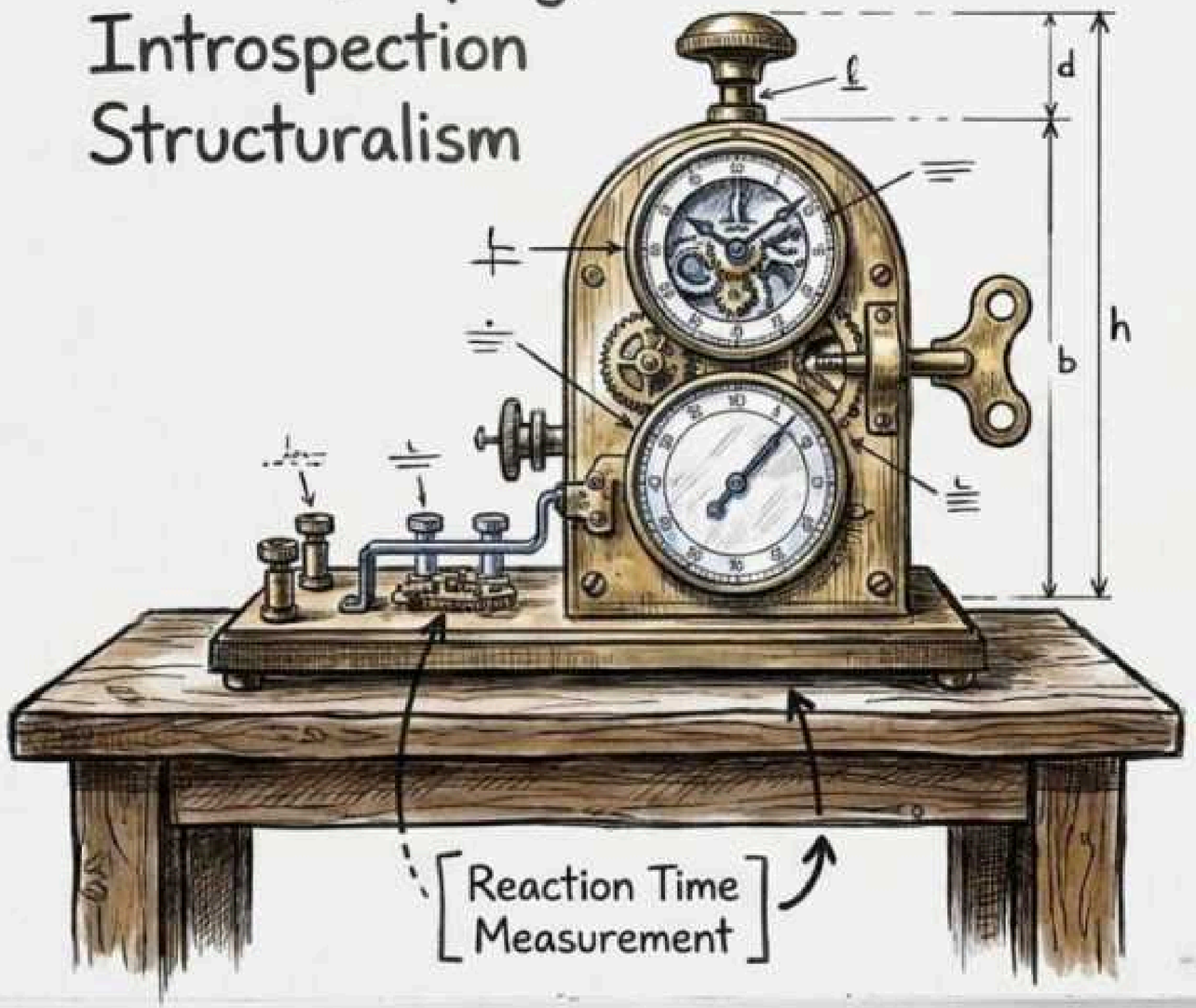


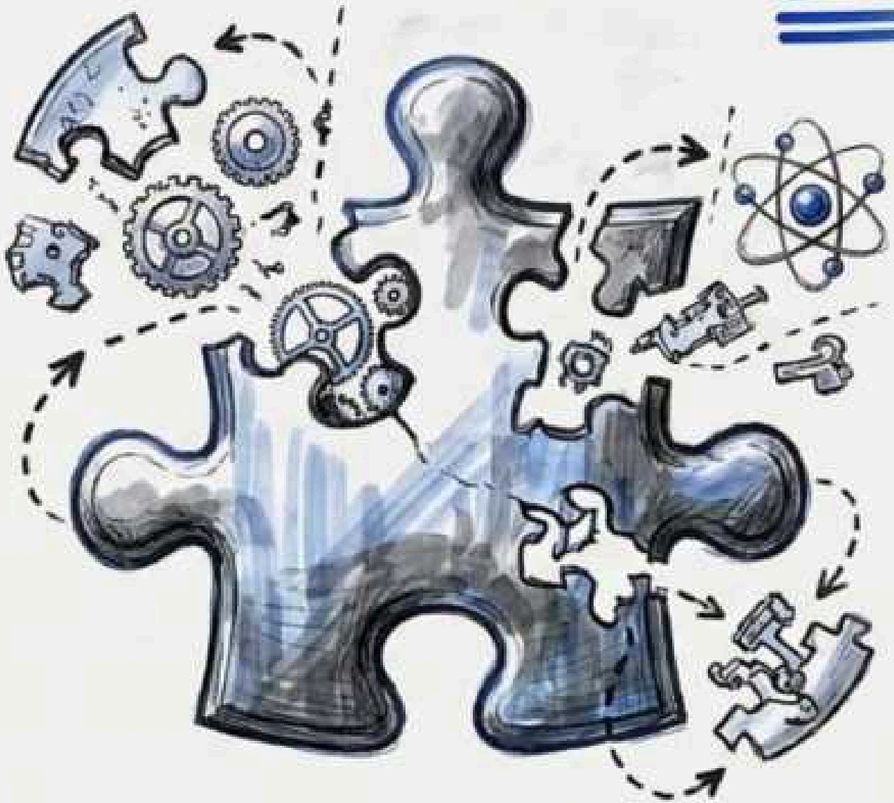


The First Laboratory (1879)

1.3

Wundt (Leipzig)
Introspection
Structuralism





{ Searching for
Basic Elements }

Functionalism (1890)

1.4

William James
Adaptation
What is it for?

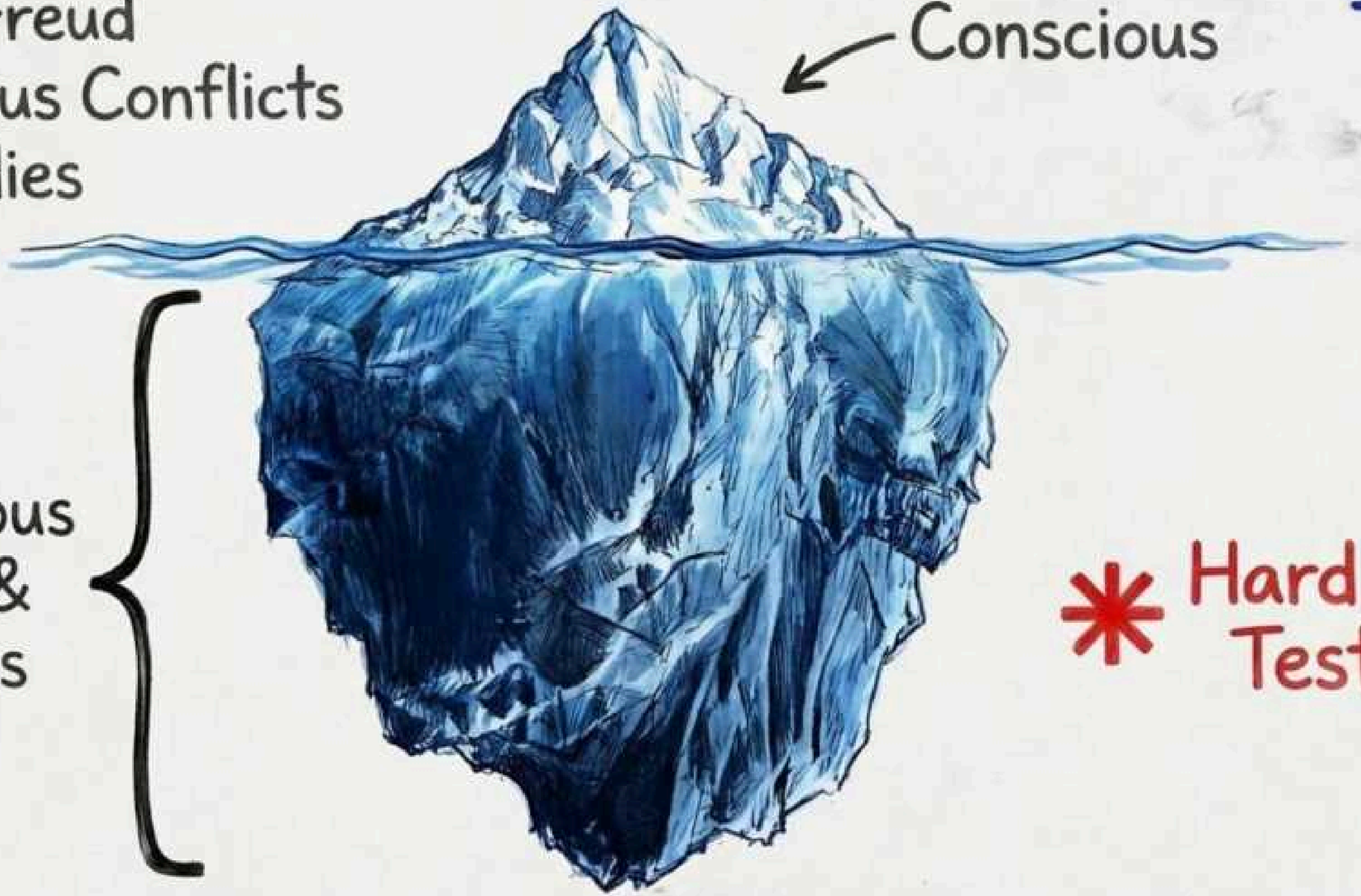


**Not what the mind is made of,
but what it is for.**

Psychoanalysis (~1900)

1.5

Sigmund Freud
Unconscious Conflicts
Case Studies



Unconscious
Wishes &
Conflicts

* Hard to Test

Behaviourism (1913)

1.6

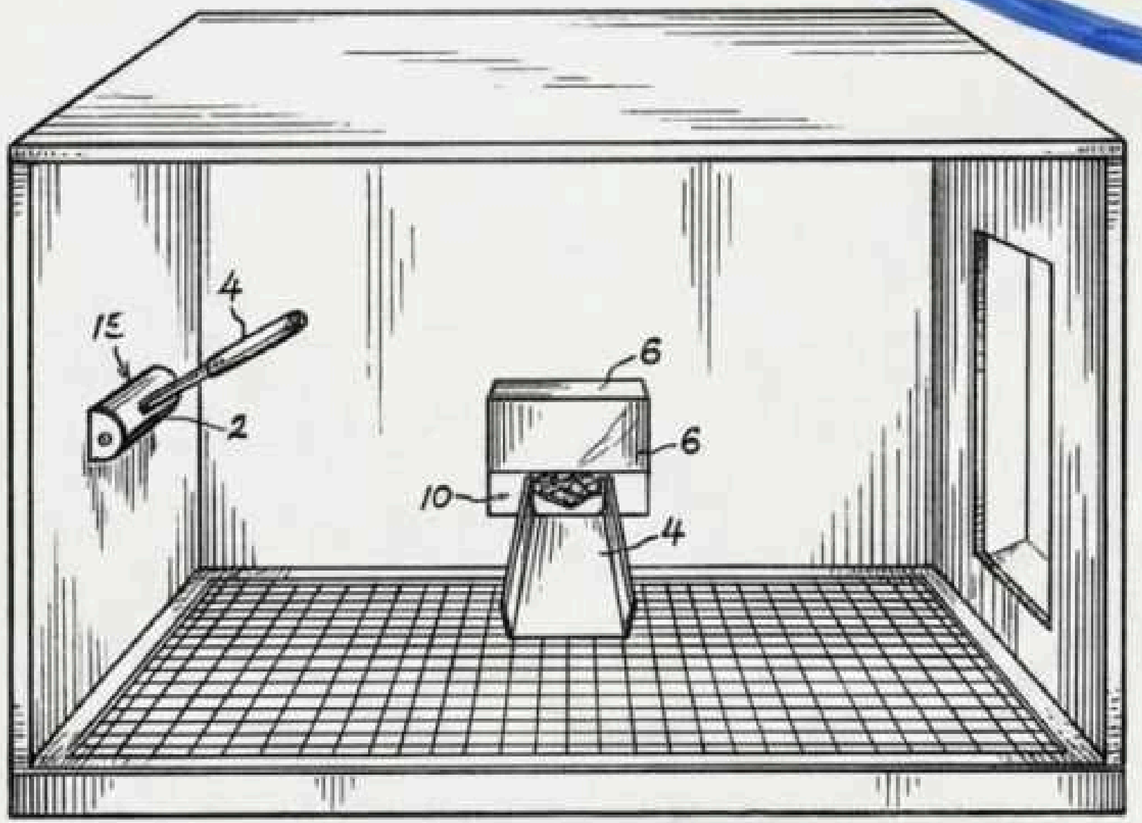
- Watson & Skinner
- Observable Only
- Reinforcement

~~Mind~~

Reinforcement

S → R

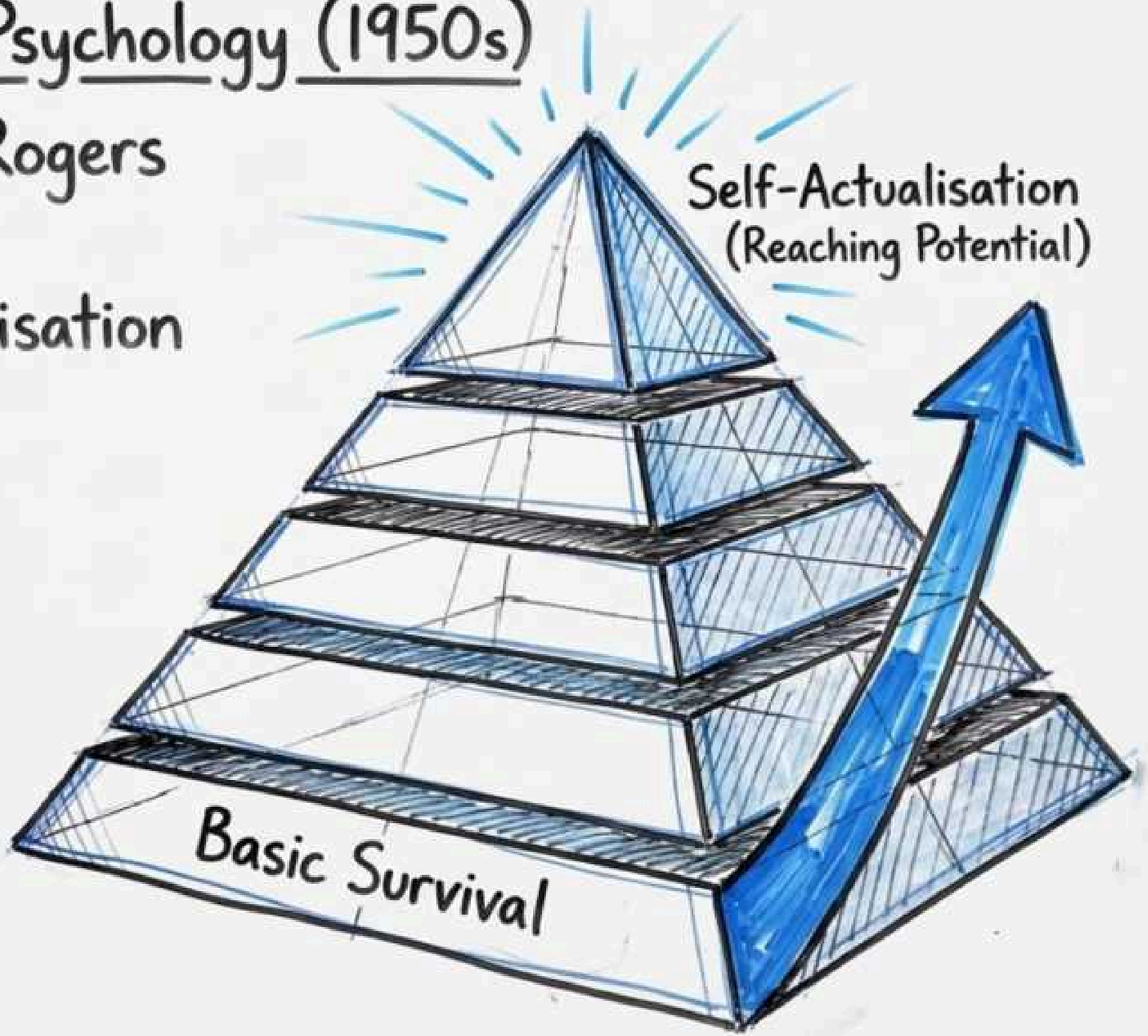
Reinforcement



Humanistic Psychology (1950s)

1.7

- Maslow & Rogers
- Free Will
- Self-Actualisation



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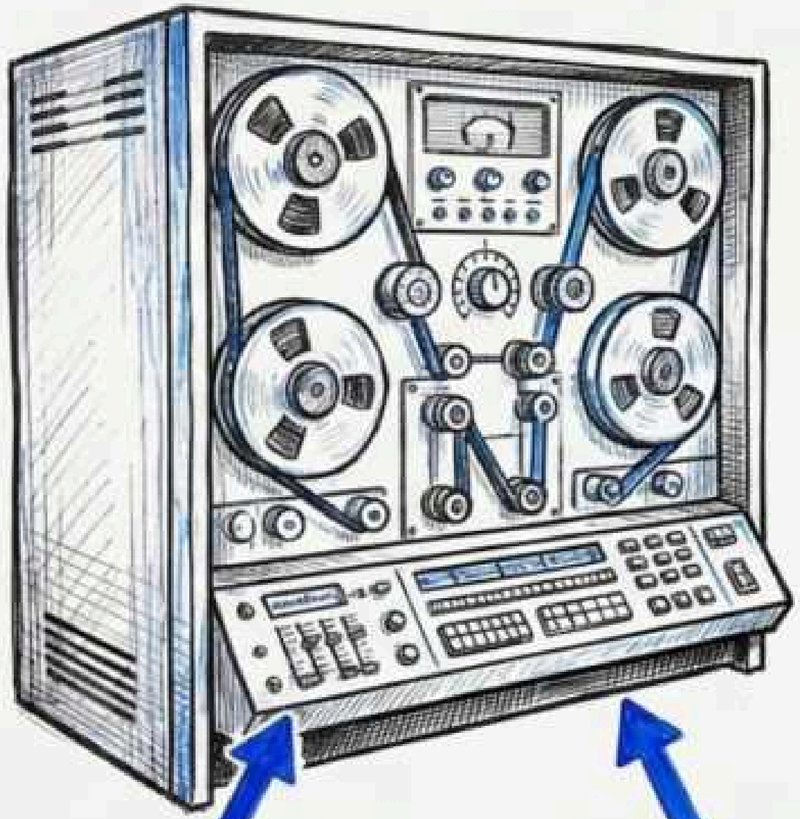
The Cognitive Revolution (1960s)

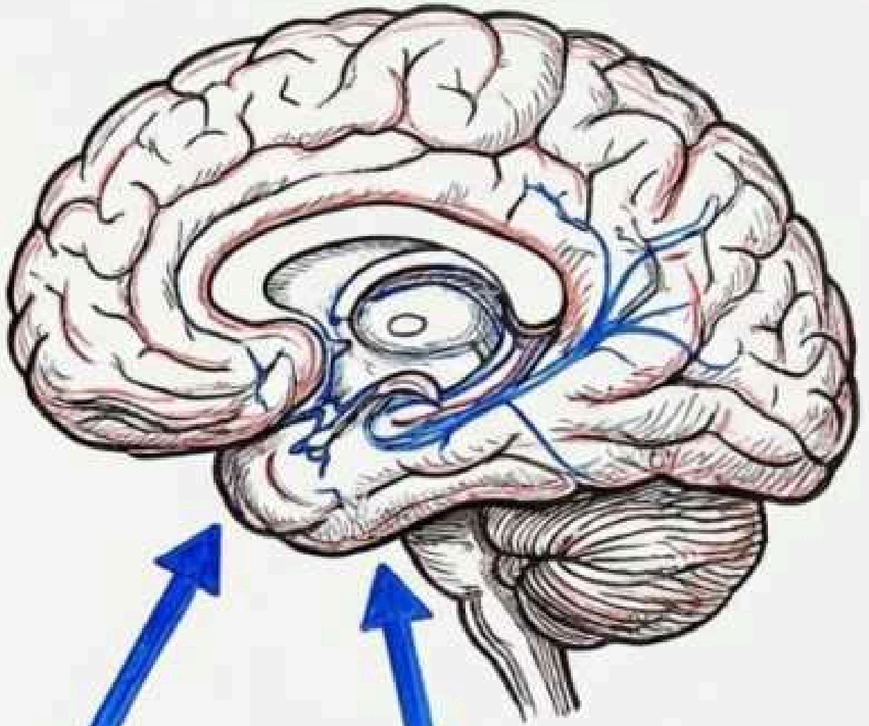
1.8

Information Processing

Mind Returns

Modern Perspectives



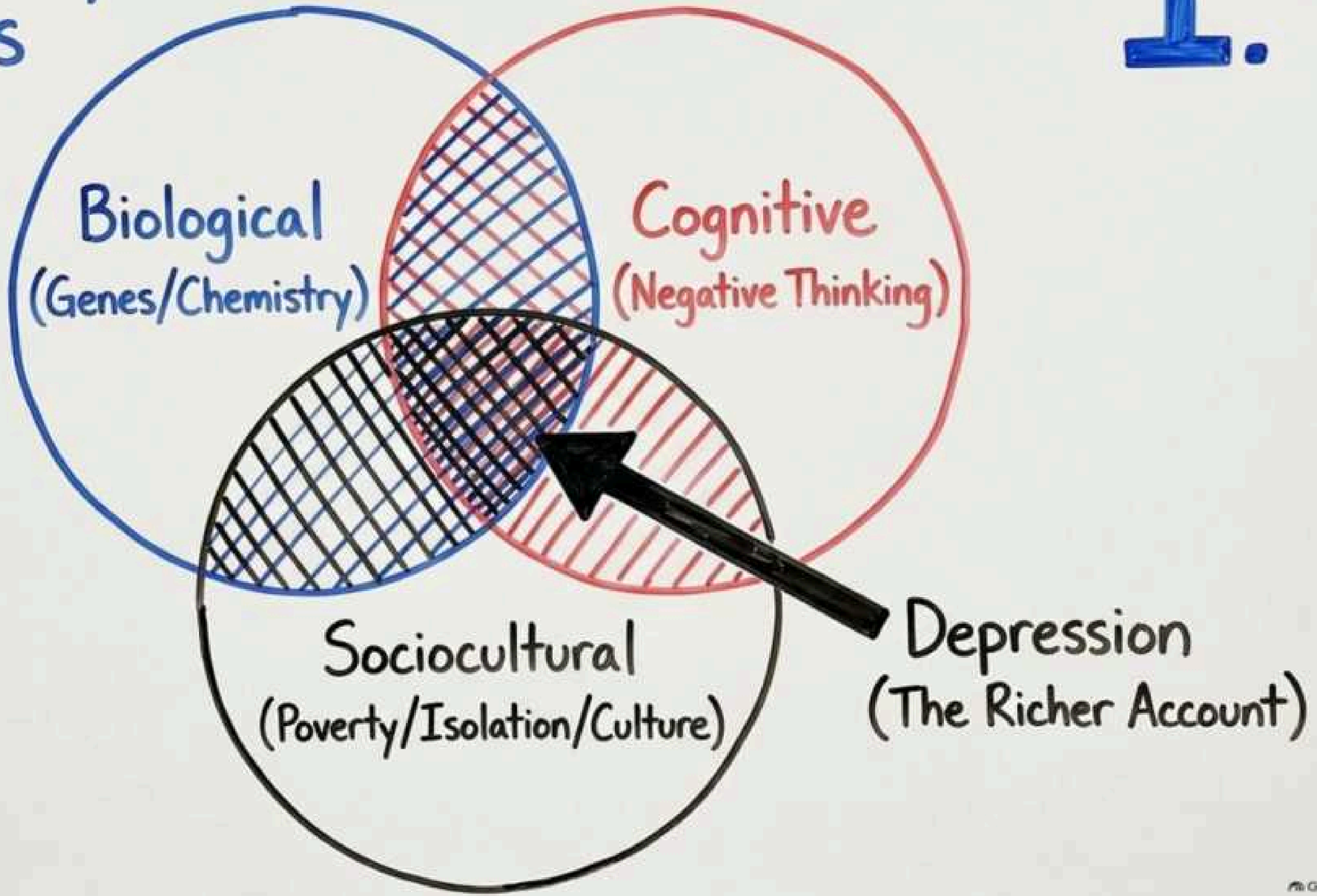




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Complementary Perspectives

1.9



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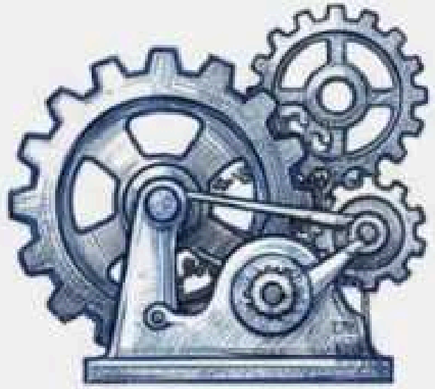
A Broad Profession

1.10

Clinical Developmental
Social Applied



Clinical/Health



Industrial/Organisational

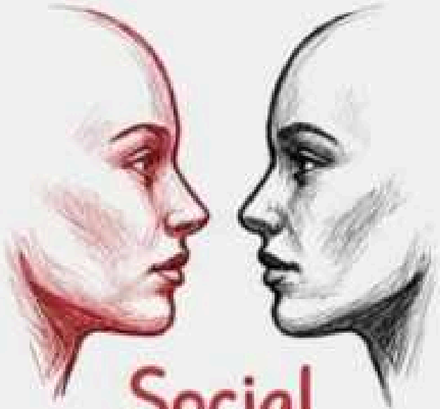


Developmental

Psychology Professions



Forensic



Social

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Why Method Matters

1.11

Intuition Fails
Hindsight
Confirmation Bias

Everyday Intuition



Hindsight
(Seems Obvious)

Confirmation Bias
(Seeing what we believe)

Scientific Method



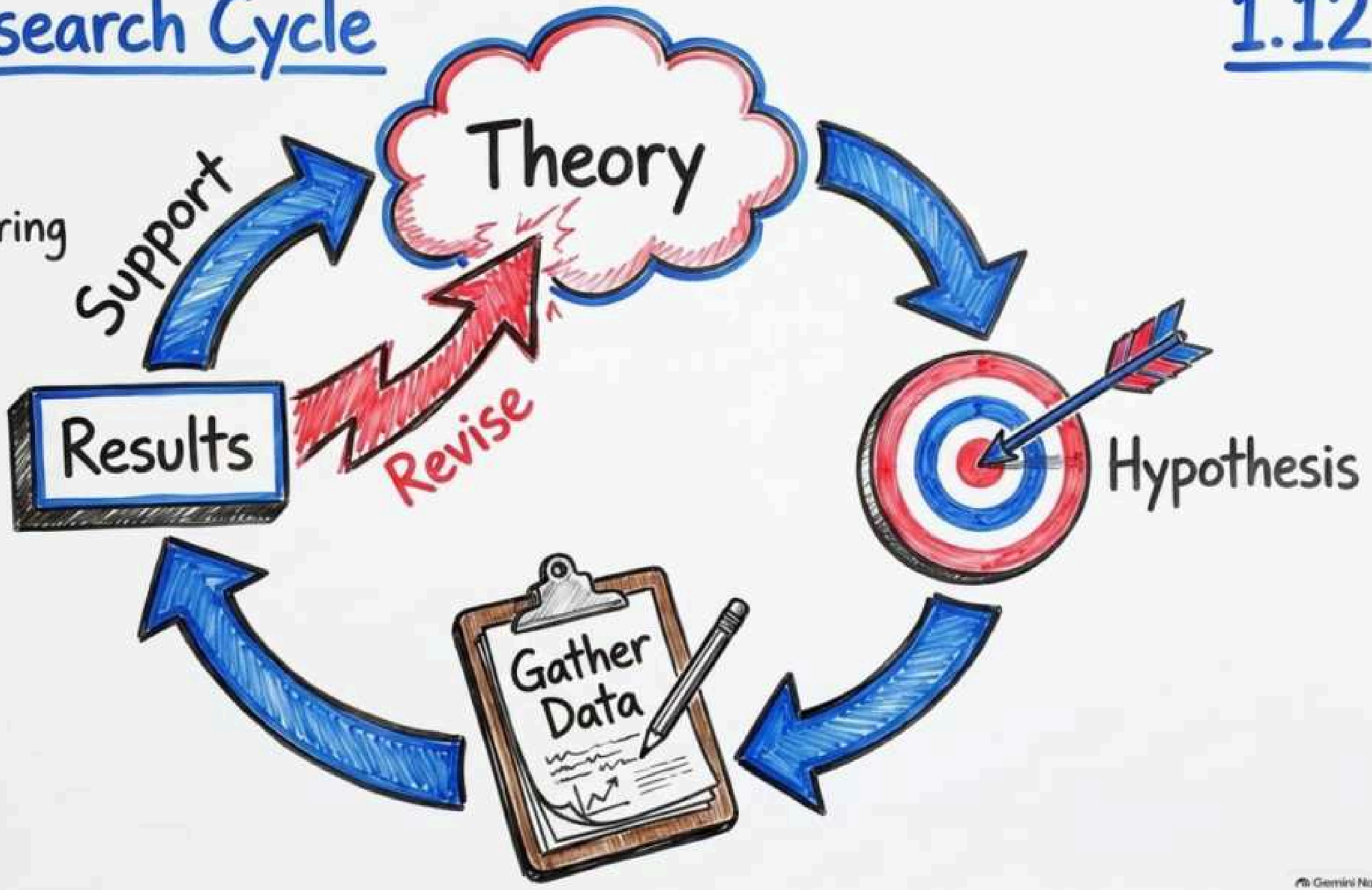
Reality Check

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The Research Cycle

1.12

Theory
Hypothesis
Data Gathering

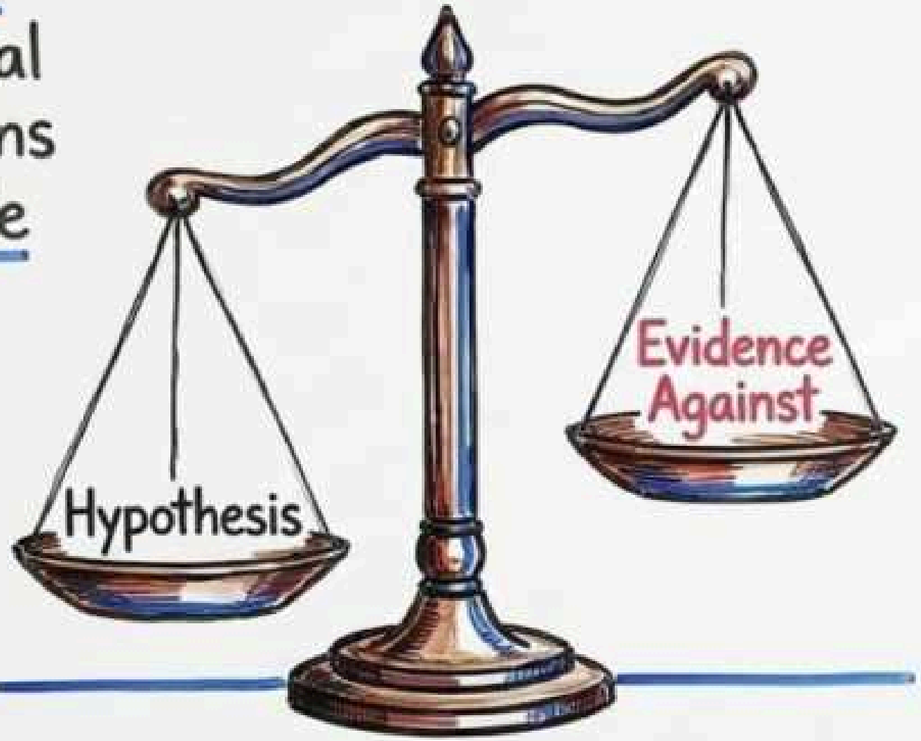


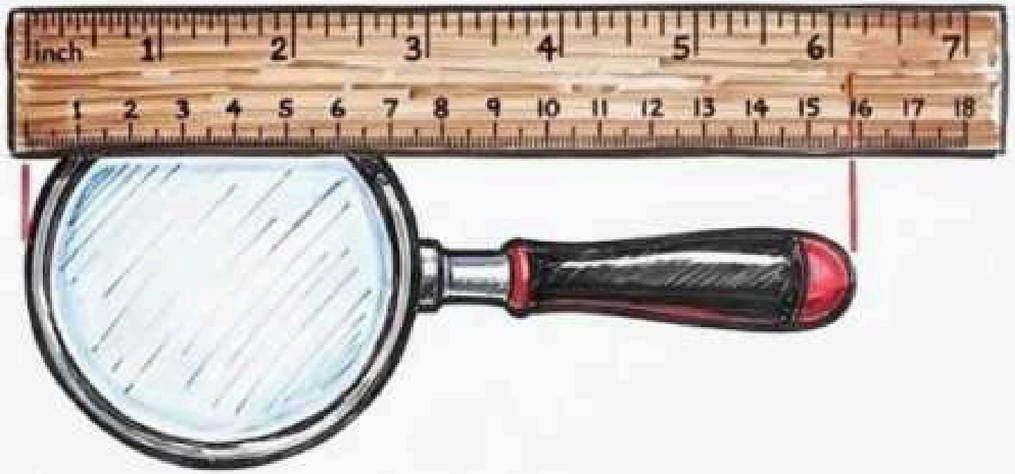
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Defining the Hypothesis

1.13

Falsifiable
Operational Definitions
Repeatable





Falsifiable: Must be able to be proven wrong.

Operational Definitions: Precise terms so others measure the exact same thing.

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Descriptive Methods

1.14

Record What Happens
Generate Hypotheses
Cannot Show Cause

Case Studies	Naturalistic Observation
Surveys	Archival Research

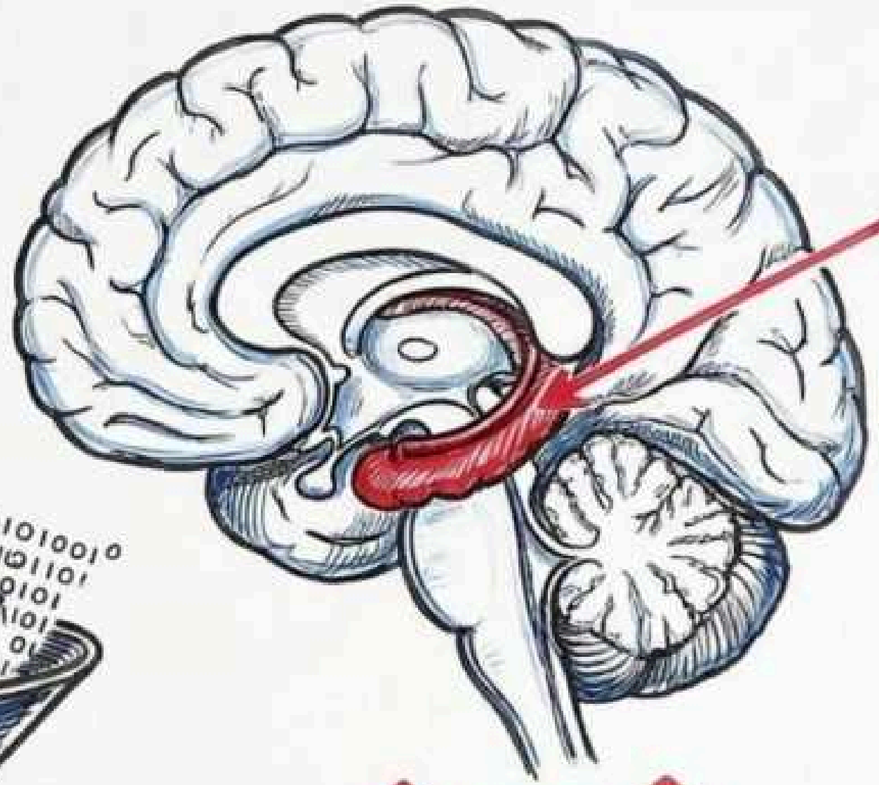
DESCRIBES ONLY. DOES NOT CAUSE.

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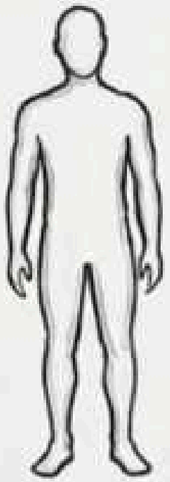
The Case Study

1.15

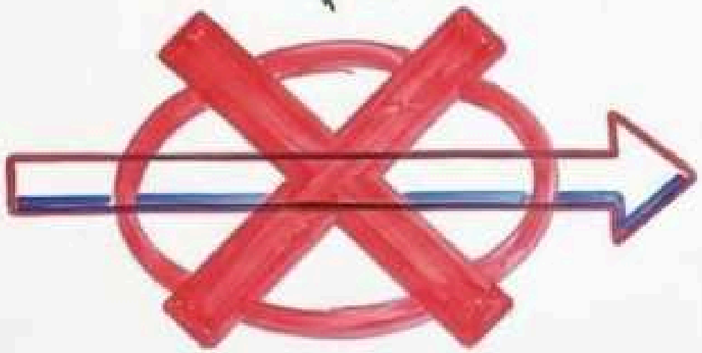
Deep Depth
Rare Conditions
Low Generalizability



H.M. (1953)
- Lost new long-term memories







Findings NOT easily generalized



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Observation & Surveys

1.16

Natural Setting
Broad Reach
Accuracy Risks



No interfering.



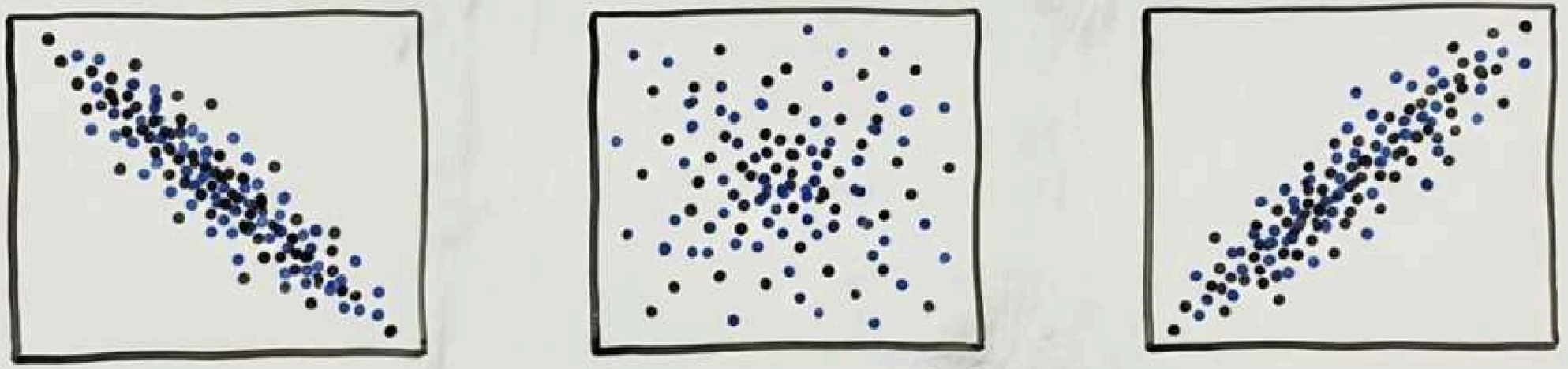
People do not always answer honestly.

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Correlational Research

1.17

Two Variables
Correlation Coefficient
-1 to +1



-1 (Negative: one rises, one falls)

0 (Zero: no relationship)

+1 (Positive: rising together)

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Correlation ≠ Causation

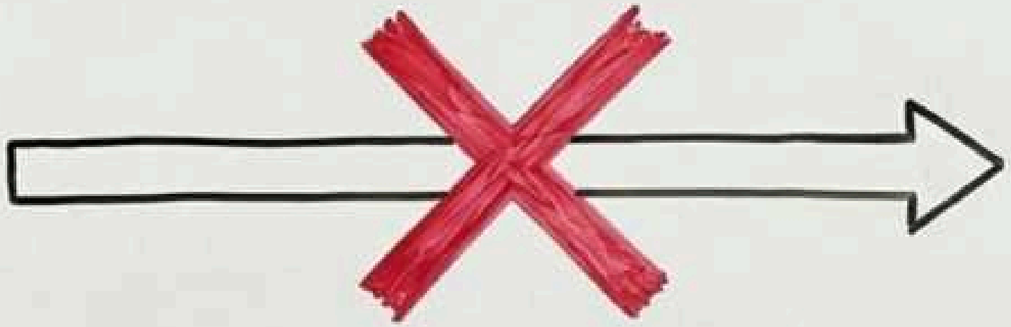
1.18

The Crucial Rule
The Third Variable



Third Variable:
Hot Weather





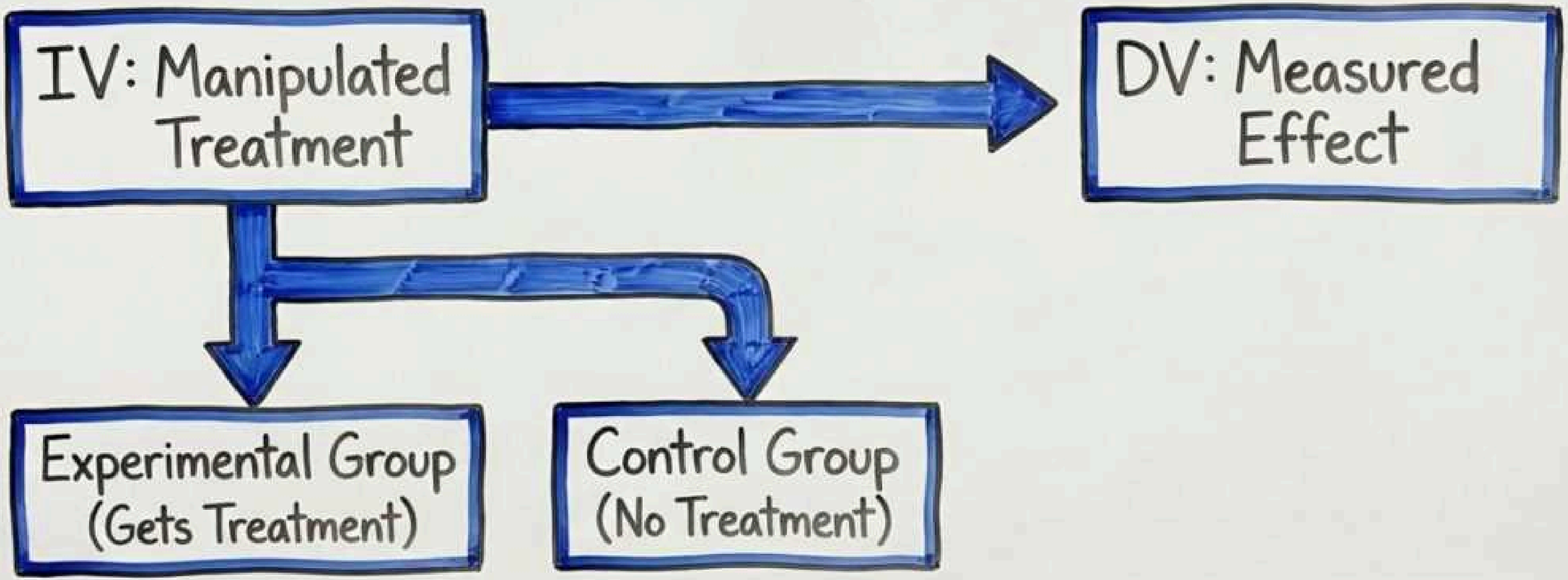


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The Experimental Method

1.19

Test Cause & Effect
Independent Variable (IV)
Dependent Variable (DV)

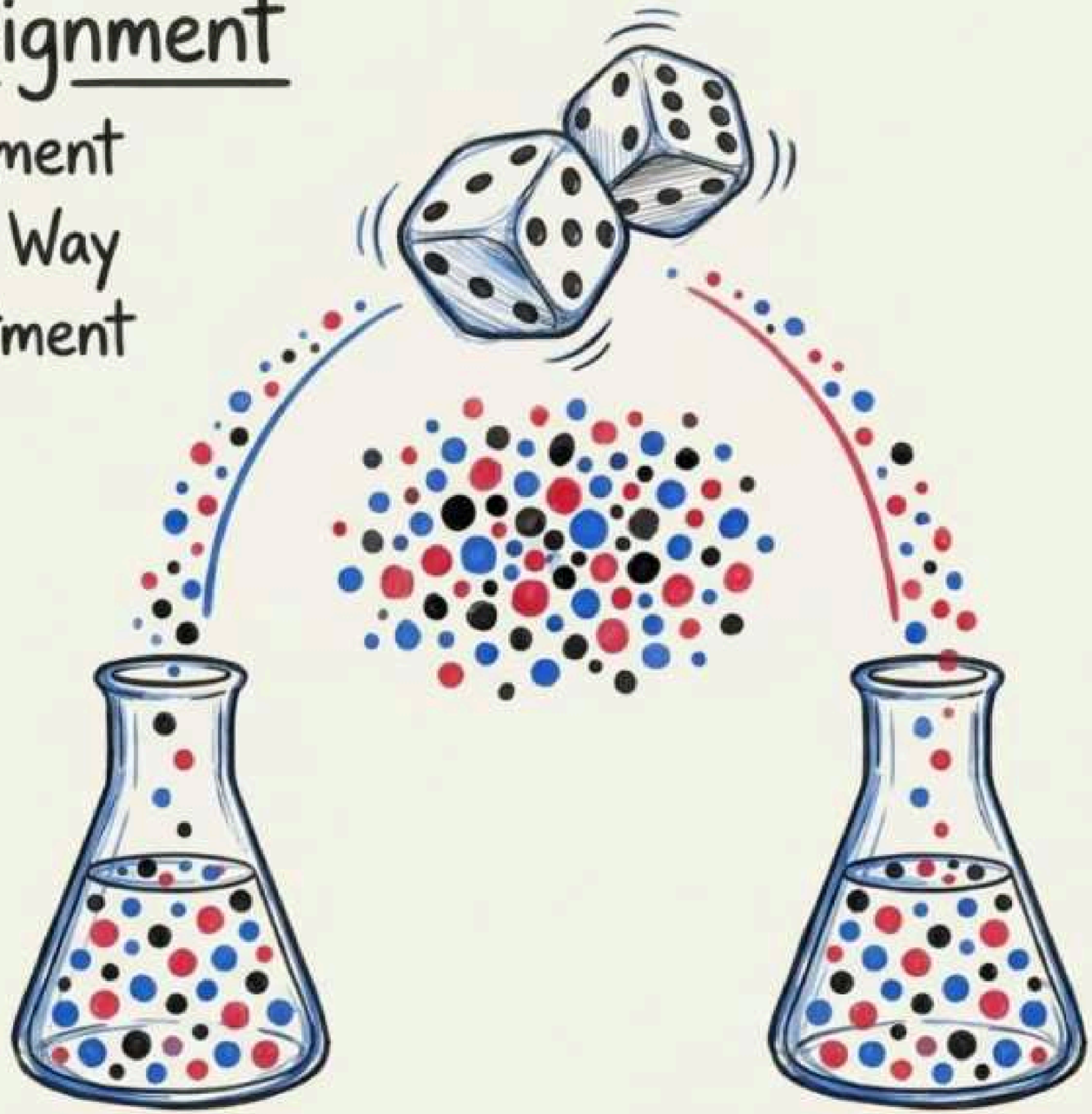


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Random Assignment

⚓ 1.20

Chance Placement
Alike in Every Way
Isolates Treatment



Chance decides 🎲

↓

Groups are identical 👥

↓

Any difference is caused by the treatment.

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Guarding Expectation

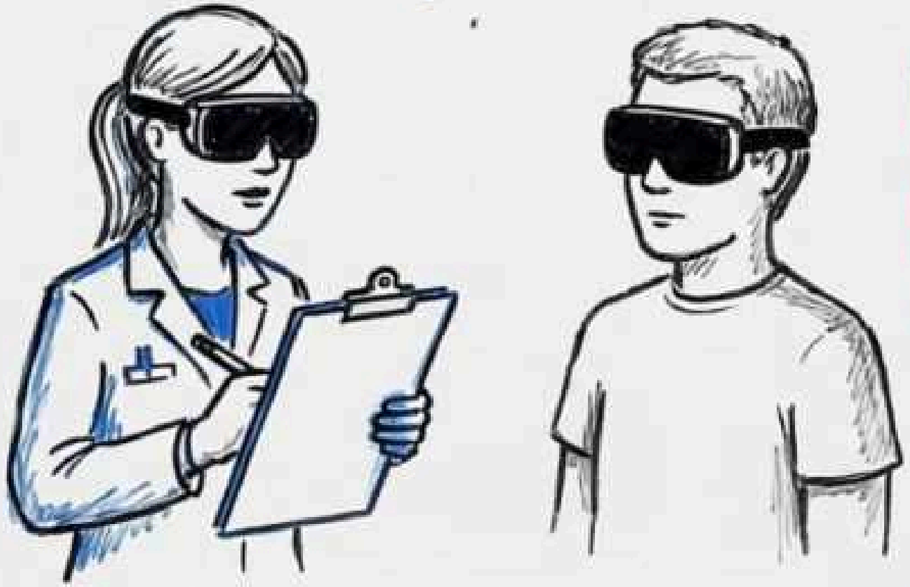
⚓ 1.21

Placebo Effect
Double-Blind Study



Placebo:
Separating real effect from belief





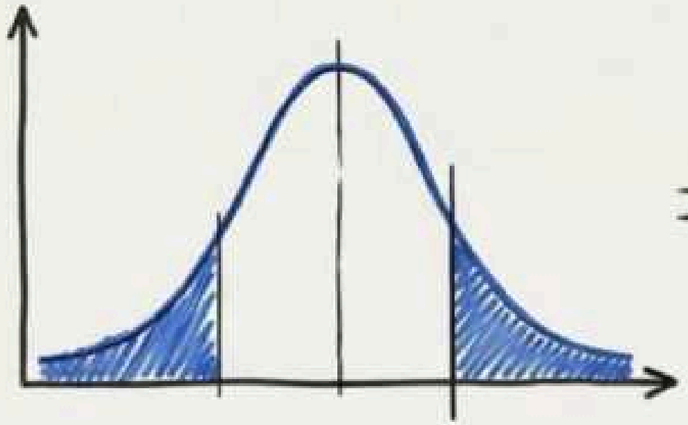
Double-Blind:
Neither knows who is in which group

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Statistics & Validation

⚓1.22

Probability by Chance Peer Review Replication



Step 1
(Statistics / Chance)



Step 2
(Peer-Reviewed Journals)



Step 3
(Replication by Independent Experts)

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Research Ethics

1.23

Informed Consent
Confidentiality
Debriefing

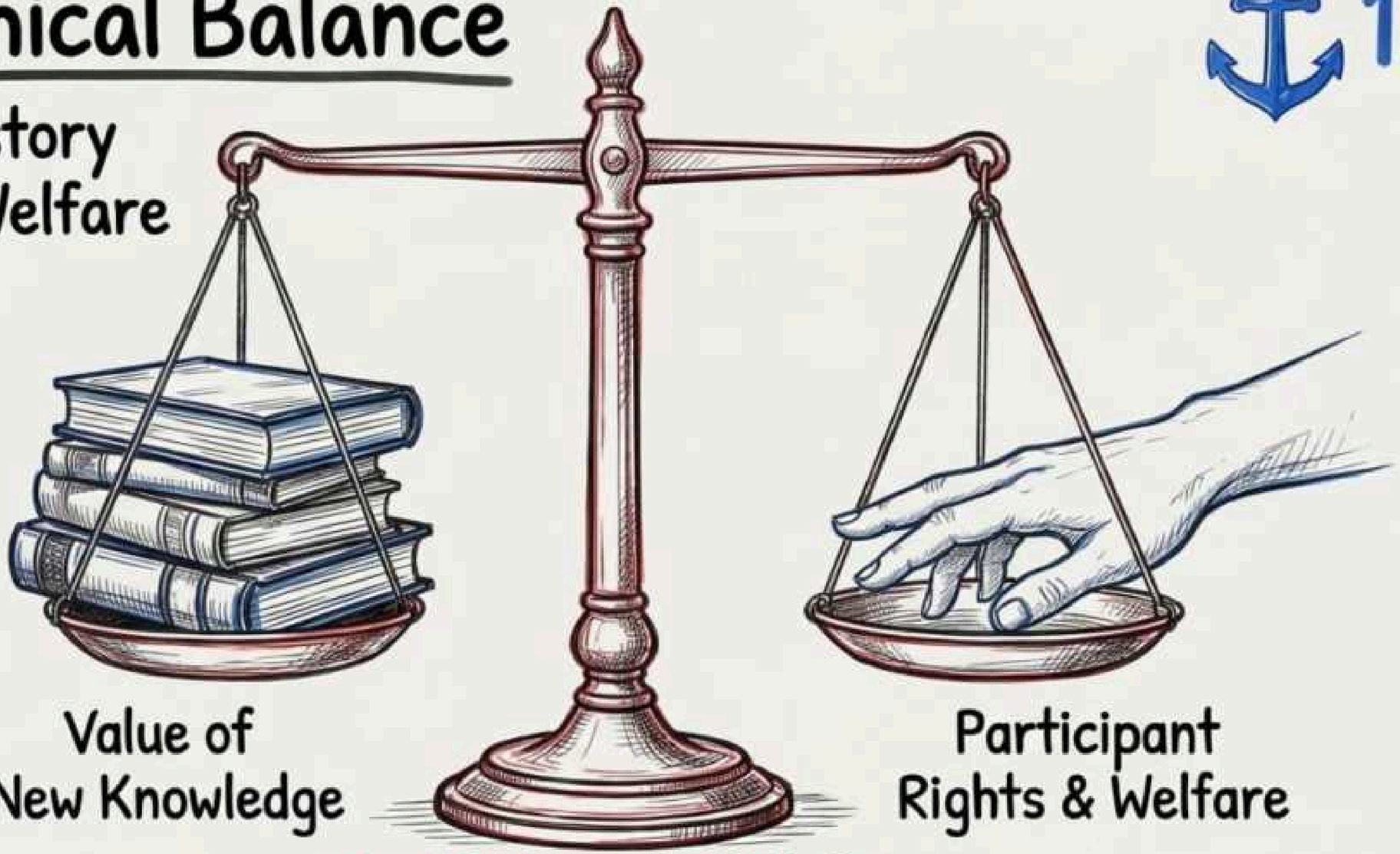


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The Ethical Balance

1.24

Painful History
Rights & Welfare



Value of
New Knowledge

Participant
Rights & Welfare

Born from medical studies
carried out without consent.

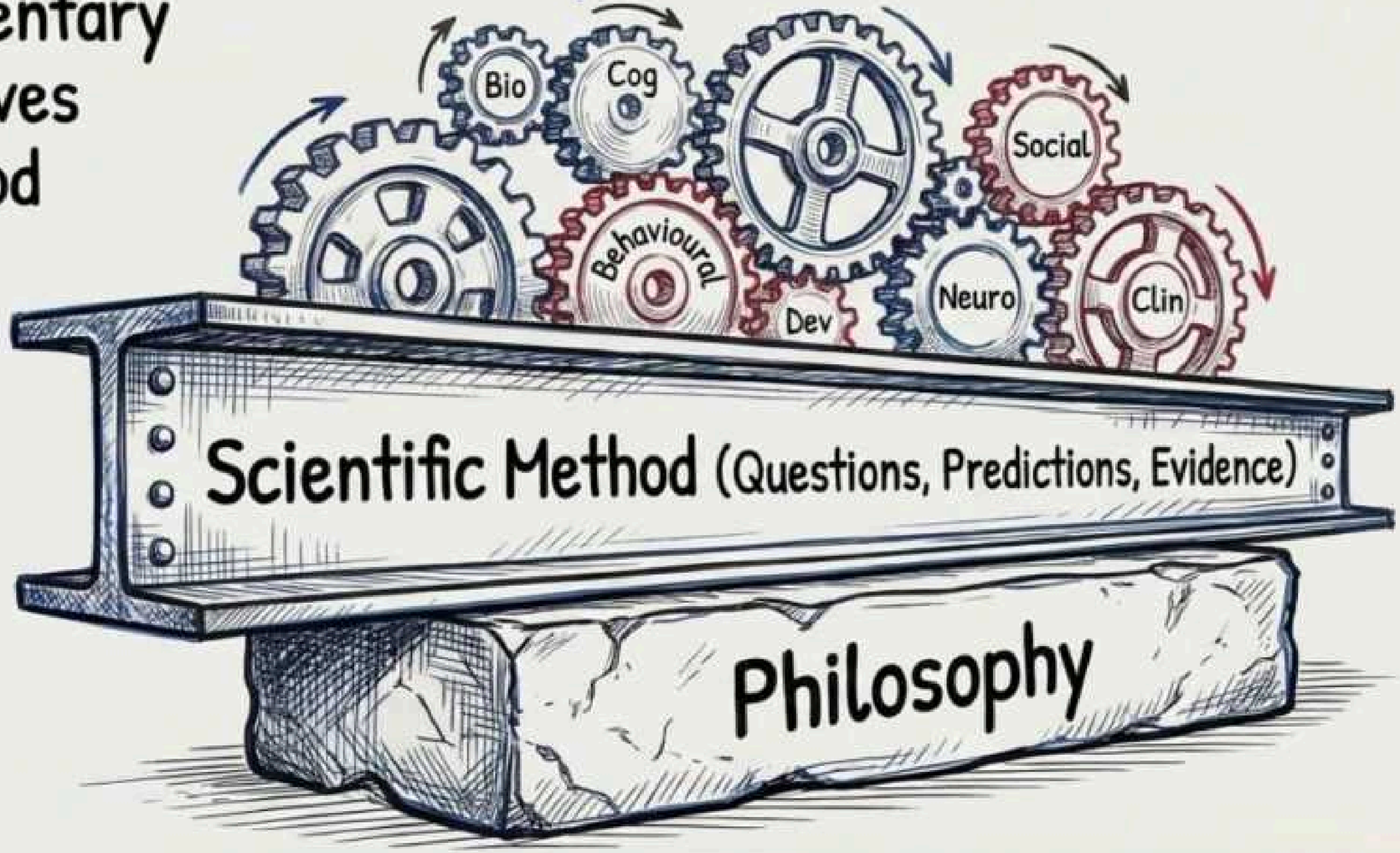
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Foundation for the Future

1.25

Philosophy to Science
Complementary
Perspectives
The Method

Every future lecture rests on this foundation.

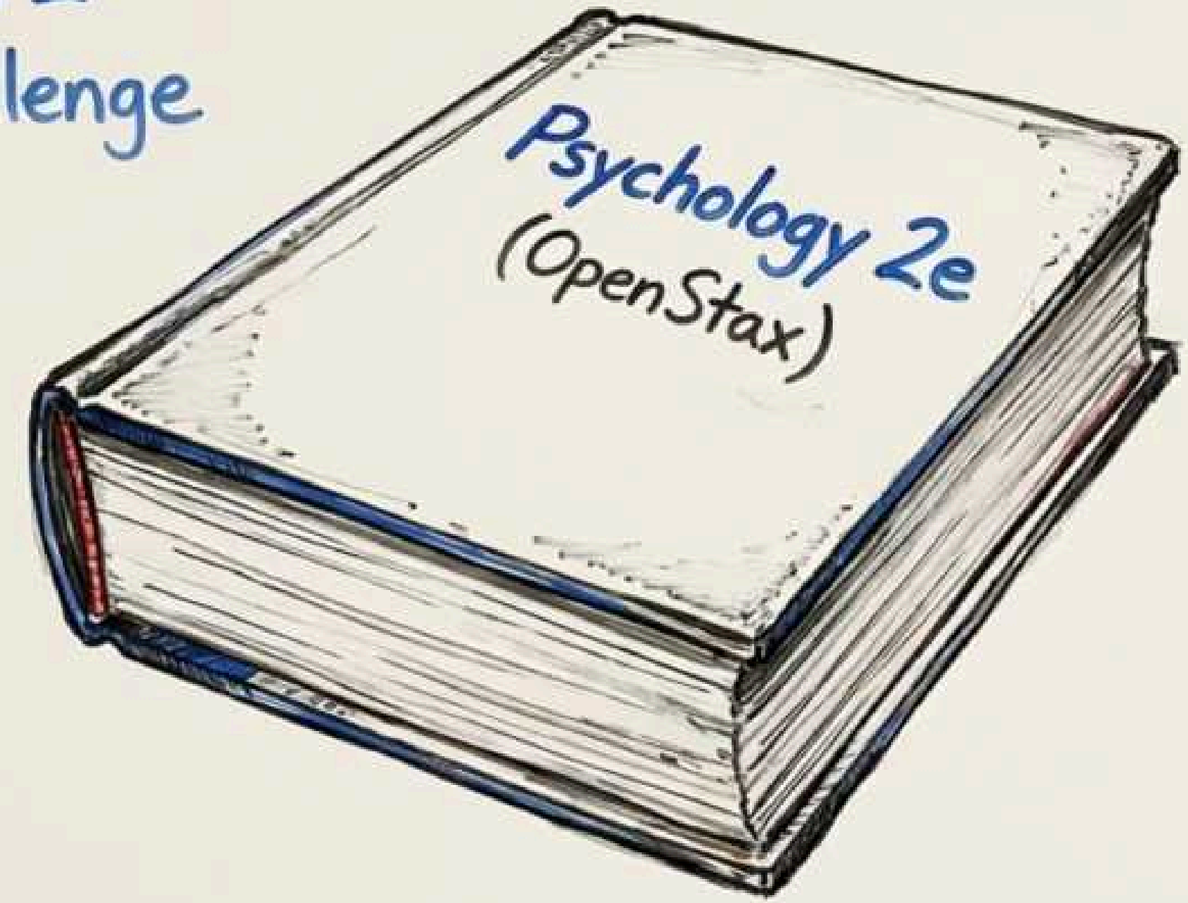


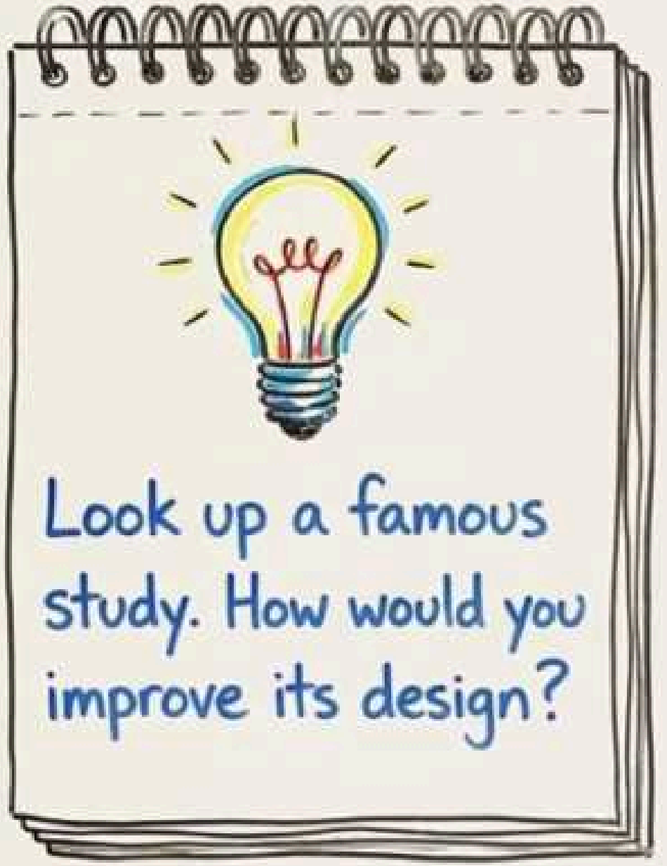
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Going Further



OpenStax Psychology 2e
Chapters 1 & 2
Design Challenge





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